

## **Zhen Chen, PhD**

**Current Position:** Investigator, Biostatistics and Bioinformatics Branch,  
Division of Epidemiology, Statistics & Prevention  
Research  
*Eunice Kennedy Shriver* National Institute of Child Health  
& Human Development  
The National Institutes of Health

**Address:** 6100 Executive Blvd., Room 7B05G  
Rockville, Maryland 20852  
301-435-6953  
301-402-2084 (fax)  
zhen.chen@nih.gov

### **Education:**

2001 Ph.D., Statistics, University of Connecticut, Storrs,  
Connecticut  
1996 M.A., Economics, University of Connecticut, Storrs,  
Connecticut  
1991 B.A., Economics, People's University of China, Beijing,  
China

### **Academic & Research Experience:**

Investigator, Biostatistics and Bioinformatics Branch, Division of Epidemiology,  
Statistics & Prevention Research, National Institute of Child Health & Human  
Development, The National Institutes of Health, 2009-present.

Staff Scientist, Epidemiology Branch, Division of Epidemiology, Statistics & Prevention  
Research, National Institute of Child Health & Human Development, The National  
Institutes of Health, 2008-2009.

Assistant Professor, Department of Biostatistics & Epidemiology, University of  
Pennsylvania, 2003-2008.

Research Fellow, Biostatistics Branch, National Institute of Environmental Health  
Sciences, The National Institutes of Health, 2001-2003.

### **Teaching:**

#### Graduate

Applied Bayesian Data Analysis (BSTA 771), Department of Biostatistics and  
Epidemiology, University of Pennsylvania, Fall 2007.

Statistical Methods in Epidemiological Research (BSTA 521), Department of Biostatistics and Epidemiology, University of Pennsylvania, Spring 2007.

Applied Bayesian Data Analysis (BSTA 771), Department of Biostatistics and Epidemiology, University of Pennsylvania, Spring 2006.

Bayesian Categorical Data Analysis (BSTA 999), Department of Biostatistics and Epidemiology, University of Pennsylvania, Fall 2005.

#### Undergraduate

Introduction to Statistics (STAT 100), Department of Statistics, University of Connecticut, Summer 2000.

Introduction to Statistics (STAT 100), Department of Statistics, University of Connecticut, Summer 1997.

#### **Scientific Review Service:**

##### Journal Review

###### *Medical/Epidemiological journals*

American Journal of Epidemiology; Andrology; Annals of Epidemiology; Contraception; Epidemiology; Fertility and Sterility; Journal of the American Medical Association.

###### *Statistical journals*

Annals of Statistics; Biometrics; Biostatistics; Computational Statistics and Data Analysis; International Statistical Review; Journal of Computational and Graphical Statistics; Lifetime Data Analysis; Statistical Methods in Medical Research; Statistics in Medicine; Statistical Sinica.

##### Grant Review

*Ad hoc reviewer*, the Clinical Trials Scientific Review and Monitoring Committee, University of Pennsylvania Cancer Center, 2005-2008.

*Ad hoc reviewer*, the Center for Health Equity Research and Promotion, 2004-2005.

*Ad hoc reviewer*, the National Standard for Normal Fetal Growth Data Coordinating Center, 2012.

#### **Professional Service:**

DSMC Committee for NICHD NPC1 Study, 2012-present.

NIH Statistics Symposium Committee, 2012.

ENAR Regional Advisory Board, 2012-present.

Session co-organizer, International Chinese Statistical Association Applied Symposium Applied Statistics Symposium, Boston, MA 2012.

Search Committee member for tenure track Investigator in Epidemiology, Division of Epidemiology, Statistics & Prevention Research, Eunice Kennedy Shriver National Institute of Child Health & Human Development, The National Institutes of Health, 2011.

Session organizer, International Chinese Statistical Association Applied Symposium Applied Statistics Symposium, New York, NY 2011.

NIH Ethics Inquiry Committee (NIH-11-03), 2011.

Biostatistics, Epidemiology, and Research Design Key Function Committee of the NIH Clinical and Translational Science Award initiative, 2010-2011.

Judge for NIH Fellows Award for Research Excellence (FARE), 2010.

Program Committee member, International Conference on Health Policy Statistics, Philadelphia, 2008.

Session organizer, the 15<sup>th</sup> International Conference of Forum for interdisciplinary Mathematics on Interdisciplinary Mathematical & Statistical Techniques, Shanghai, China, 2007.

Impact Committee member, Department of Biostatistics and Epidemiology, University of Pennsylvania, 2006-2008.

Faculty Appointments Committee member, Department of Biostatistics and Epidemiology, University of Pennsylvania, 2006-2008.

Biostatistics Applied Research Forum Committee member, Department of Biostatistics and Epidemiology, University of Pennsylvania, 2005-2007.

Faculty Recruitment Committee member, Department of Biostatistics and Epidemiology, University of Pennsylvania, 2004-2005.

Session organizer, the Joint Statistical Meeting, Toronto, 2004.

Session Chair, ENAR Spring Meeting, Pittsburgh, PA 2004.

Session Chair, ENAR Spring Meeting, Tampa, FL 2003.

### **Invited Presentations**

“A Bayesian approach to limit of detection,” University of Maryland at Baltimore County, MD, 2012

“A Bayesian approach to limit of detection,” ICSA Applied Statistics Symposium, Boston, MA, 2012

“A Bayesian approach to limit of detection,” George Washington University, Washington DC, 2012

“Latent Class Models for Joint Analysis of Disease Prevalence and High-Dimensional Chemical Exposures,” International Toxicology of Mixtures Conference, Arlington, VA 2011

“Robustness in linear models with informative cluster size,” ICSA Applied Statistics Symposium, New York, NY, 2011

“An integrated Bayesian hidden Markov model approach to CNVs incorporating pedigree information,” ISBA 2010 World Meeting, Benidorm, Spain, 2010

“Discussion of Statistical Methods in Reproductive Epidemiology,” JSM, Washington DC, 2009

“More Accurate Copy Number Variation Calls in Family SNP Genotyping Data using Bayesian Hidden Markov Models and Inheritance Vectors,” NICHD/NIH, Rockville, MD, 2009

“Copy Number Variation Calls in Family SNP Genotyping Data using Bayesian Hidden Markov Models and Inheritance Vectors,” Thomas Jefferson University, Philadelphia, 2008

“More Accurate Copy Number Variation Calls in Family SNP Genotyping Data using Bayesian Hidden Markov Models and Inheritance Vectors,” Fox Chase Cancer Center, Philadelphia, 2008

“More Accurate Copy Number Variation Calls in Family SNP Genotyping Data using Bayesian Hidden Markov Models and Inheritance Vectors,” 57th ASHG Annual Meeting, San Diego, 2007

“Modeling Developmental Toxicity Endpoints: A Causal Inference Approach”, University of Connecticut, CT, 2007

“Modeling Developmental Toxicity Endpoints: A Causal Inference Approach”, Joint Meeting of CSPA and IMS, Beijing, 2005

“Modeling Developmental Toxicity Endpoints: A Causal Inference Approach”, University of Pittsburgh, PA, 2005

“Selecting Factors Predictive of Heterogeneity in Multivariate Event Time Data”, ENAR, Pittsburgh, PA, 2004

“Modeling Truncated Count Data with Endogeneity in Health Service Research”, Peking University, Beijing, 2004

“Random Effects Selection in Linear Mixed Effects Model”, Rand, Santa Monica, CA, 2003

“Random Effects Selection in Linear Mixed Effects Model”, University of Texas M.D. Andersen Cancer Center, Houston, TX, 2003

“Random Effects Selection in Linear Mixed Effects Model”, University of Pennsylvania, Philadelphia, PA, 2003

“Random Effects Selection in Linear Mixed Effects Model”, Vanderbilt University, Nashville, TN, 2003

“Random Effects Selection in Linear Mixed Effects Model”, University of Iowa, Iowa City, IA, 2003

“Random Effects Selection in Linear Mixed Effects Model”, ENAR, Tampa, FL, 2003

“A Bayesian Approach for Assessing Heterogeneity in Generalized Linear Models”, National Institute of Environmental Health Sciences, Research Triangle Park, NC, 2002

“A Bayesian Approach for Assessing Heterogeneity in Generalized Linear Models”, University of North Carolina at Chapel Hill, Chapel Hill, NC, 2002

“A Bayesian Approach for Assessing Heterogeneity in Generalized Linear Models”, Statistical and Applied Mathematical Sciences Institute, Research Triangle Park, NC, 2002

“A Skewed Multinomial Probit Model for Discrete Choice Data”, University of Maryland, Baltimore, MD, 2001

“A Skewed Multinomial Probit Model for Discrete Choice Data”, North Carolina State University, Raleigh, NC, 2001

“A Skewed Multinomial Probit Model for Discrete Choice Data”, National Institute of Environmental Health Sciences, Research Triangle Park, NC, 2001

“A Skewed Multinomial Probit Model for Discrete Choice Data”, Bayesian Application and Methods in Marketing Conference, Columbus, OH, 2000

**Non-invited Presentations:**

“Bayesian Order Restricted Inference of Measurement Agreement with an Application to the Physician Reliability Study,” ENAR, Washington DC, 2012

“Bi-directional Mixed Effects Models,” ENAR, New Orleans, LA 2010

“More Accurate Copy Number Variation Calls in Family SNP Genotyping Data using Bayesian Hidden Markov Models and Inheritance Vectors,” ENAR, Arlington, VA 2008

“Detection of Copy Number Variations from High-Density SNP Arrays: An Integrated Bayesian Hidden Markov Model Approach Incorporating Pedigree Information,” JSM, Denver, CO 2008

“Bayesian Frailty Selection in Cox Models,” JSM, Salt Lake City, UT 2007

“Bayesian Methods in Health Service Research”, JSM, Toronto, 2004

“Bayesian Methods in Health Service Research”, JSM, Toronto, 2004

“On Estimating Multinomial Logit Models with Random Effects”, New England Statistics Symposium, Storrs, CT, 2001

“Parametric Discrete Choice Models Based on the Scale Mixtures of Multivariate Normal Distributions”, Joint Statistical Meeting, Indianapolis, IN, 2000

“A Composite Transition Model for Brand Choice and Purchase Timing Data”, New England Statistics Symposium, Storrs, CT, 1999

**Awards:**

NIH Merit Award. National Institute of Child Health & Human Development. *For successfully designing and completing the novel ENDO Study aimed at answering questions about environmental influences on endometriosis.* January 19, 2012.

NIH Merit Award. National Institute of Child Health & Human Development. *For ingenuity in designing and dedication in completing the LIFE Study, whose aim is to identify environmental reproductive toxicants.* September 29, 2009

Young Investigator Award, Statistics in Epidemiology Section, American Statistical Association, 2002.

H. Fairfield Smith Award for excellence in applied statistics, University of Connecticut, 1997.

**Mentoring:**

Mentor to summer intern Elande Baro (University of Maryland at Baltimore County) at NICHD, 2011

Co-mentor (with Albert Paul) to postdoctoral fellow Bo Zhang (University of Minnesota) at NICHD, October 2009-October 2011.

Mentor to postdoctoral fellow Yunlong Xie (University of Iowa) at NICHD, October 2011-present.

Ph.D. Thesis Committee member for Chengcheng Liu in Biostatistics, University of Pennsylvania, 2007-2008.

Ph.D. Thesis Committee member for Julia Lin in Biostatistics, University of Pennsylvania, 2003-2006.

Ph.D. Thesis Committee member for Sharon Meropol in Epidemiology, University of Pennsylvania, 2007-2008.

M.S. Thesis mentor to Bing Cai in Biostatistics, University of Pennsylvania, 2005-2007.

Ph.D. Thesis Committee member for Peng Zhang in Statistics, University of Pennsylvania Wharton School of Business, 2004-2006.

### **Refereed Manuscripts (\*Fellow mentored papers):**

1. **Chen, Z** and Kuo, L. *A note on the estimation of the multinomial logit model with random effects*. American Statistician, 55(2):89-95, 2001.
2. **Chen, Z** and Kuo, L. *Discrete choice models based on the scale mixtures of multivariate normal distributions*. Sankhya, 64(B):89-95, 2002.
3. **Chen, Z** and Dunson, DB. *Random effects selection in linear mixed models*. Biometrics, 59(4):762-769, 2003.
4. Dunson, DB, **Chen, Z**, and Harry, J. *A Bayesian approach for joint modeling of cluster size and subunit-specific outcomes*. Biometrics, 59(3):521-530, 2003.
5. Daniels, J, Longnecker, M, Klebanoff, M, Gray, K, Brock, J, Zhou, H, **Chen, Z**, and Needham, L. *Prenatal exposure to low-level polychlorinated biphenyls in relation to mental and motor development at 8 months*. American Journal of Epidemiology, 157(6):485-492, 2003.
6. **Chen, Z** and Dunson, DB. *Bayesian estimation of survival functions under stochastic precedence*. Lifetime Data Analysis, 10(2):159-173, 2004.
7. Dunson, DB and **Chen, Z**. *Selecting factors predictive of heterogeneity in multivariate event time data*. Biometrics, 60(2):352-358, 2004.

8. Kuo, L and **Chen, Z**. *A state duration model for brand choice and inter-purchase time*. Journal of Data Science, 2:125-147, 2004.
9. O'Brien, P, Kucharczuk, J, Marshall, M, Friedberg, J, **Chen, Z**, Kaiser, L, and Shrager, J. *Comparative study of subxiphoid versus video-thoracoscopic pericardial window*. Annals of Thoracic Surgery, 80(6):2013-2019, 2005.
10. Parker, C, **Chen, Z**, Gross, R, Brensinger, C, Newcomb, C, Price, M, Cohen, A, Metlay, J, and Kimmel, SE. *Patient adherence to a prescribed warfarin regimen: preliminary results from the In-Range study*. Circulation, 111(14):E238, 2005.
11. Longnecker, M, Klebanoff, M, Dunson, DB, Guo, X, **Chen, Z**, Zhou, H, and Brock, J. *Maternal serum level of the DDT metabolite DDE in relation to fetal loss in previous pregnancies*. Environmental Research, 97(2):127-133, 2005.
12. Groeneveld, PW, Kruse, G, **Chen, Z**, and Asch, DA. *Racial disparity in cardiovascular procedures within the Veterans Health Administration: the role of hospitals*. Circulation, 111(20):E323, 2005.
13. Groeneveld, PW, Kruse, G, Brookstein, E, Zhu, J, **Chen, Z**, and Volpp, K. *Hospital market effects on uptake and utilization of innovative cardiovascular technologies*. Circulation, 111(20):E312, 2005.
14. Polsky, D, Lave, JR, Jha, A, Pauly, MV, **Chen, Z**, Cen, L, Klusaritz, H, and Volpp, K. *Is lower hospital mortality among blacks unique to the Veterans Administration?* Journal of General Internal Medicine, 21(Suppl. 4):77, 2006.
15. Shrager, JB, Nathan, D, Brinster, CJ, Yousuf, O, Spence, A, **Chen, Z**, and Kaiser, LR. *Outcomes after 151 extended transcervical thymectomies for myasthenia gravis*. Annals of Thoracic Surgery, 82(5):1863-1869, 2006.
16. Elliott, M, Joffe, M, and **Chen, Z**. *A potential outcomes approach to developmental toxicity analyses*. Biometrics, 62(2):352-360, 2006.
17. Hall, C, Verghese, J, Sliwinski, M, **Chen, Z**, Katz, M, Derby, C, and Lipton, R. *Dementia incidence may increase more slowly after age 90 - results from the Bronx aging study*. Neurology, 65(6):882-886, 2005.
18. Parker, CS, **Chen, Z**, Price, M, Gross, R, Metlay, JP, Christie, JD, Brensinger, CM, Newcomb, CW, Samaha, FF, and Kimmel, SE. *Adherence to warfarin assessed by electronic pill caps, clinician assessment, and patient reports: Results from the In-Range study*. Journal of General Internal Medicine, 22(9):1254-1259, 2007.
19. Kealey, C, **Chen, Z**, Christie, J, Thorn, CF, Whitehead, AS, Price, M, Samaha, FF, and Kimmel, SE. *Warfarin and cytochrome p4502c9 genotype: Possible ethnic variation in warfarin sensitivity*. Pharmacogenomics, 8(3):217-225, 2007.
20. Schelleman, H, **Chen, Z**, Kealey, C, Whitehead, AS, Christie, J, Price, M, Brensinger, CM, Newcomb, CW, Thorn, CF, Samaha, FF, and Kimmel, SE. *Warfarin response and vitamin K epoxide reductase complex 1 in African Americans and Caucasians*. Clinical Pharmacology & Therapeutics, 81(5):742-747, 2007.
21. Schelleman, H, **Chen, Z**, Whitehead, AS, Christie, J, Price, M, Kealey, C, Brensinger, CM, Newcomb, CW, Thorn, CF, and Kimmel, SE. *Vitamin k epoxide reductase complex 1 variant influences warfarin response in african americans*. Circulation, 115(8):E223, 2007.



22. Kimmel, SE, **Chen, Z**, Price, M, Parker, CS, Metlay, JP, Christie, JD, Brensinger, CM, Newcomb, CW, Samaha, FF, and Gross, R. *The influence of patient adherence on anticoagulation control with warfarin - results from the international normalized ratio adherence and genetics (in-range) study*. Archives of Internal Medicine, 167(3):229- 235, 2007.
23. Friscia, ME, Zhu, J, Kolff, JW, **Chen, Z**, Kaiser, LR, Deutschman, CS, and Shrager, JB. *Cytokine response is lower after lung volume reduction through bilateral thoracoscopy versus sternotomy*. Annals of Thoracic Surgery, 83(1):252-256, 2007.
24. Groeneveld, PW, Kruse, GB, **Chen, Z**, and Asch, DA. *Variation in cardiac procedure use and racial disparity among Veterans Affairs hospitals*. American Heart Journal, 153(2):320-327, 2007.
25. Polsky, D, Lave, J, Klusaritz, H, Jha, A, Pauly, MV, Cen, L, Xie, H, Stone, R, **Chen, Z**, and Volpp, K. *Is lower 30-day mortality post hospital admission among blacks unique to the veterans affairs health care system?* Medical Care, 45(11):1083-1089, 2007.
26. Guzzo, TJ, Levin, BM, Lee, R, Guo, M, **Chen, Z**, Whittington, R, Tomaszewski, J, and Malkowicz, SB. *Relationship of biochemical outcome to percentage of positive biopsies in men with clinically localized prostate cancer treated with permanent interstitial brachytherapy*. Urology, 71(4):723-727, 2008.
27. Canter, D, Guzzo, TJ, Resnick, MJ, Brucker, B, Vira, M, **Chen, Z**, Tomaszewski, J, Vanarsdalen, K, Wein, AJ, and Malkowicz, SB. *Hydronephrosis is an independent predictor of poor clinical outcome in patients treated for muscle-invasive transitional cell carcinoma with radical cystectomy*. Urology, 72(2):379-383, 2008.
28. Meropol, SB, Chan, KA, **Chen, Z**, Finkelstein, JA, Hennessy, S, Lautenbach, E, Platt, R, Schech, SD, Shatin, D, and Metlay, JP. *Adverse events associated with prolonged antibiotic use*. Pharmacoepidemiology and Drug Safety, 17(5):523-532, 2008.
29. Polsky, D, Jha, AK, Lave, J, Pauly, MV, Cen, L, Klusaritz, H, **Chen, Z**, and Volpp, KG. *Short- and long-term mortality after an acute illness for elderly whites and blacks*. Health Services Research, 43(4):1388-1402, 2008.
30. Hubbard, RD, **Chen, Z**, and Winkelstein, BA. *Transient cervical nerve root compression modulates pain: Load thresholds for allodynia and sustained changes in spinal neuropeptide expression*. Journal of Biomechanics, 41(3):677-685, 2008.
31. Lee, I, Thompson, S, Lautenbach, E, Gasink, LB, Watson, B, Fishman, NO, **Chen, Z**, Linkin, DR. *Effect of accessibility of influenza vaccination on the rate of childcare staff vaccination*. Infection Control and Hospital Epidemiology, 29(5):465-467, 2008.
32. Casarett, D, Pickard, A, Bailey, FA, Ritchie, C, Furman, C, Rosenfeld, K, Shreve, S, **Chen, Z**, and Shea, JA. *Do palliative consultations improve patient outcomes?* Journal of the American Geriatrics Society, 56(4):593-599, 2008.
33. Wang, K, **Chen, Z**, Tadesse, MG, Glessner, J, Grant, SFA, Hakonarson, H, Bucan, M, and Li, M. *Modeling genetic inheritance of copy number variations*. Nucleic Acids Research, page Gkn641, 2008.

34. Kimmel, SE, Christie, J, Kealey, C, **Chen, Z**, Price, M, Thorn, CF, Brensinger, CM, Newcomb, CW, and Whitehead, AS. *Apolipoprotein E genotype and warfarin dosing among Caucasians and African Americans*. Pharmacogenomics Journal, 8(1):53-60, 2008.
35. Schelleman, H, Chen, J, **Chen, Z**, Christie, J, Newcomb, CW, Brensinger, CM, Price, M, Whitehead, AS, Kealey, C, Thorn, CF, Samaha, FF, and Kimmel, SE. *Dosing algorithms to predict warfarin maintenance dose in Caucasians and African Americans*. Clinical Pharmacology & Therapeutics, 84(3):332-339, 2008.
36. Canter, D, Guzzo, TJ, Resnick, MJ, Brucker, B, Vira, M, **Chen, Z**, Tomaszewski, J, VanArsdalen, K, Wein, AJ, and Malkowicz, SB. *Hydronephrosis is an independent predictor of poor clinical outcome in patients treated for muscle-invasive transitional cell carcinoma with radical cystectomy*. Journal of Urology, 182(1):100, 2009.
37. Meropol, SB, **Chen, Z**, and Metlay, JP. *Reduced antibiotic prescribing for acute respiratory infections in adults and children*. British Journal of General Practice, 59(567):321-8, 2009.
38. Platt, AB, Field, SH, Asch, DA, **Chen, Z**, Patel, NP, Gupta, R, Roche, DF, Gurubhagavatula, I, Christie, JD, and Kuna, ST. *Neighborhood of residence is associated with daily adherence to CPAP therapy*. Sleep, 32(6):799-806, 2009.
39. Myocardial Infarction Genetics Consortium, Kathiresan, S, Voight, B, Purcell, S, Musunuru, K, Ardissino, D, Mannucci, P, Anand, S, Engert, J, Samani, N, Schunkert, H, Erdmann, J, Reilly, M, Rader, DJ, Morgan, T, Spertus, J, Stoll, M, Girelli, D, McKeown, P, Patterson, C, Siscovick, D, O'Donnell, C, Elosua, R, Peltonen, L, Salomaa, V, Schwartz, S, Melander, O, Altshuler, D, Angelica, P, Berzuni, C, Bernardinelli, L, Peyvandi, F, Sreafico, M, Tubaro, M, Celli, P, Ferrario, M, Faveau, R, Marziliano, N, Casari, G, Galli, M, Ribichini, F, Rossi, M, Bernardi, F, Zoncin, P, Piazza, A, Asselta, R, Duga, S, Yee, J, Friedlander, Y, Marrugat, J, Lucas, G, Subirana, I, Sala, J, Ramos, R, MacRae, C, Havilunna, A, Berglund, G, Hirschhorn, J, Daly, M, Surti, A, Guiducci, C, Gianniny, L, Mirel, D, Parkin, M, Burt, N, Gabriel, S, Thompson, J, Braund, P, Wright, B, Balmforth, A, Ball, S, Hall, A, Wellcome Trust Case Control Consortium, Linsel-Nitschke, P, Lieb, W, Ziegler, A, Konig, I, Hengstenberg, C, Fisher, M, Stark, K, Grosshennig, A, Preuss, M, Wichmann, HE, Schreiber, S, Ouwehand, W, Deloukas, P, Scholz, M, Cambien, F, Li, M, **Chen, Z**, Wilensky, R, Matthai, W, Qasim, A, Hakonarson, H, Devaney, J, Burnett, MS, Pichard, A, Kent, K, Satler, L, Waksman, R, Epstein, S, Scheffold, T, Berger, K, Hogue, A, Martinelli, N, Olivieri, O, Corrocher, R, Do, R, Xie, C, Holm, H, Thorleifsson, G, Thorsteinsdottir, U, Stefansson, K, Meigs, J, Williams, G, Nathan, D, Nemesh, J, Korn, J, McCarroll, S, and Lindsay, J. *Genome-wide association of early-onset myocardial infarction with common single nucleotide polymorphisms and common copy number variants and rare copy number variants*. Nature Genetics, 41(3):334-41, 2009.
40. Muntner, P, Anderson, A, Charleston, J, **Chen, Z**, Ford, V, Makos, G, O'Connor, A, Perumal, K, Rahman, M, Steigerwalt, S, Teal, V, Townsend, R, Weir, M, and Wright, J. *Hypertension awareness, treatment, and control in adults with CKD: Results from the chronic renal insufficiency cohort (CRIC) study*. American Journal of Kidney Diseases, 55(3):415-418, 2010.

41. Chetty-John, S, Zhang, J, **Chen, Z**, Albert, P, Sun, L, Klebanoff, M, and Grewal, U. *Long-term physical and neurologic development in newborns with isolated single umbilical artery*. American Journal of Obstetrics & Gynecology, 203(4):368.e1-368.e7, 2010.
42. Munson, JJ, Kreider, ME, **Chen, Z**, Christie, JD, and Kimmel, SE. *Effect of treatment guidelines on the initial management of idiopathic pulmonary fibrosis*. British Journal of Clinical Pharmacology, 70(1):118-125, 2010.
43. Munson, JJ, Kreider, ME, **Chen, Z**, Christie, JD, and Kimmel, SE. *Factors associated with the use of corticosteroids in the initial management of idiopathic pulmonary fibrosis*. Pharmacoepidemiology and Drug Safety, 19(7):756-762, 2010.
44. Levine, J, Kofke, A, Cen, L, **Chen, Z**, Faerber, J, Elliott, JP, Winn, HR, and Le Roux, P. *Red blood cell transfusion is associated with infection and extracerebral complications after subarachnoid hemorrhage*. Neurosurgery, 66(2):312-318, 2010.
45. Magge, SN, Chen, HI, Ramakrishna, R, Cen, L, **Chen, Z**, Elliott, JP, Winn, HR, Le Roux, PD. *Association of a younger age with an increased risk of angiographic and symptomatic vasospasms following subarachnoid hemorrhage*. Journal of Neurosurgery, 112(6):1208-1215, 2010.
46. Platt, AB, Field, SH, Asch, DA, **Chen, Z**, Patel, NP, Gupta, R, Roche, DF, Gurubha-gavatula, I, Christie, JD, and Kuna, ST. *Adherence to sleep apnea therapy and use of lipid-lowering drugs: A study of the healthy user effect*. Chest, 137(1):102-8, 2010.
47. **Chen, Z**, Zhang, B, and Albert, P. *A joint modeling approach to data with informative cluster size: robustness to the cluster size model*. Statistics in Medicine, 30(15):1825-36, 2011.
48. Buck Louis, G, Lum, K, Sundaram, R, **Chen, Z**, Kim, S, Lynch, C, Schisterman, E, and Pyper, C. *Stress reduces conception probabilities across the fertile window: Evidence in support of relaxation*. Fertility and Sterility, 95(7):2184-2189, 2011.
49. Zhang, J, Branch, W, Ramirez, M, Laughon, K, Reddy, U, Hoffman, M, Bailit, J, Kominiarek, M, **Chen, Z**, and Hibbard, J. *Oxytocin regimen for labor augmentation, labor progression and perinatal outcomes*. Obstetrics & Gynecology, 118(2):249-56, 2011.
50. Buck Louis, G, Schisterman, E, Sweeney, A, Wilcosky, T, Gore-Langton, R, Lynch, C, Barr, D, Schrader, S, Kim, S, **Chen, Z**, Sundaram, R, and on behalf of the LIFE Study. *Designing prospective cohort studies for assessing reproductive and developmental toxicity during sensitive windows of human reproduction and development - LIFE Study*. Paediatric & Perinatal Epidemiology, 25(5):413-24, 2011.
51. Buck Louis, G, Hediger, M, Peterson, M, Croughan, M, Sundaram, R, Stanford, J, **Chen, Z**, Fujimoto, V, Varner, M, Trumble, A, Giudice, L, and on behalf of the ENDO Study Working Group. *Incidence of endometriosis by study population and diagnostic method: the ENDO Study*. Fertility and Sterility, 96(2):360-5, 2011.

52. \*Zhang, B, **Chen, Z**, and Albert, P. *Latent class models for joint analysis of disease prevalence and high-dimensional semicontinuous biomarker data*. Biostatistics 0(0):1-15, 2011.
53. Buck Louis, GM, Sundaram, R, Schisterman, EF, Sweeney, AM, Lynch, CD, Gore Langton, RE, **Chen, Z**, Kim, S, Caldwell, K, & Barr, DB. *Heavy Metals and Couple Fecundity, the LIFE Study*. Chemosphere 87(11):1201-7, 2012.
54. Buck Louis, GM, **Chen, Z**, Peterson, CM, Hediger, ML, Croughan, MS, Sundaram, R, Stanford, JB, Varner, MW, Fujimoto, VY, Giudice, LC, Trumble, A, Parsons, PJ, and Kannan K. *Persistent lipophilic environmental chemicals and endometriosis: the ENDO Study*. Environmental Health Perspectives, 120(6):811-816, 2012.
55. Kunisue, T, **Chen, Z**, Buck Louis, GM, Sundaram, R, Hediger, ML, Sun, L, and Kannan, K. *Urinary concentrations of Benzophenone-type UV filters in U.S. women and their association with endometriosis*. Environmental Science and Technology 46:4624-32, 2012.
56. Schliep, KC, Stanford, JB, **Chen, Z**, Zhang, B, Dorais, JK, Johnstone, EB, Hammoud, AO, Varner, MW, Buck Louis, GM, Peterson, CM, on behalf of the ENDO Study Working Group. *Inter- and Intra-rater Reliability in the Diagnosis and Staging of Endometriosis*. Obstetrics & Gynecology 120(1):104-12, 2012.
57. Reddy, UM, Zhang, J, Sun, L, **Chen, Z**, Raju, TNK, Laughon, SK. *Neonatal mortality by attempted route of delivery in early preterm birth*. American Journal of Obstetrics & Gynecology 207(2):117.e1-117.e8, 2012.
58. Buck Louis, GM, Peterson, CM, **Chen, Z**, Hediger, ML, Croughan, MS, Sundaram, R, Stanford, JB, Fujimoto, VY, Varner, MW, Giudice, LC, Kennedy, A, Sun, L. *Perfluorochemicals and endometriosis: the ENDO Study*. Epidemiology, 2012, in press.
59. Danaher, M, Roy, A, **Chen, Z**, Mumford, S, and Schisterman, E. *Minkowski-Weyl priors for models with parameter constraints: an analysis of the BioCycle Study*. Journal of the American Statistical Association, 2012, in press.
60. \*Zhang, B, **Chen, Z**, and Albert, PS. *Estimating diagnostic accuracy of raters without a gold standard by exploiting a group of experts*. Biometrics, 2012, in press.
61. Zhang, Z, **Chen, Z**, Troendle, J, and Zhang, J. *Causal inference on quantiles with application to safe labor*. Biometrics, 2012, in press.
62. Roy, A, Danaher, M, Mumford, S, and **Chen, Z**. *A Bayesian order restricted model for hormonal dynamics during biocycles in healthy women*. Statistics in Medicine, 2012, in press.
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